## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Benjamin P. Warner et al.

Docket No.: S-100,585

Serial No.:

Examiner:

Filed

Art Unit:

For

METHOD AND APPARATUS FOR DETECTING CHEMICAL BINDING

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT **UNDER 37 CFR 1.56, 1.97, AND 1.98**

Sir:

The documents listed below, copies attached, are submitted in compliance with the duty of disclosure defined in 37 CFR 1.56.

- 1. D. Allen Annis et al., "Method for Identifying Compounds in a Chemical Mixture," U. S. Patent 6,147,344, issued November 14, 2000.
- 2. Jonathan A. Ellman et al., "Pharmacophore Recombination for the Identification of Small Molecule Drug Lead Compounds," U. S. Patent 6,344,344, issued February 5, 2002.

## CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8(a))

I hereby certify that this correspondence is, on the date shown below, being:

MAILING

deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Samuel L. Borkowsky

United States Patent and Trademark Office.

(type or print name of person certifying)

**FACSIMILE** 

☐ transmitted by facsimile to the

- 3. Ole Hindsgaul et al., "Apparatus for Screening Compound Libraries," U. S. Patent 6,395,169, issued May 28, 2002.
- 4. Anders Hanning, "Method of Assaying For An Analyte Using Surface Plasmon Resonance," U. S. Patent 5,641,640, issued June 24, 1997.

**~** 

- 5. Magnus Malmqvist et al., "Analyte Detection," U. S. Patent 5,965,456, issued October 12, 1999.
- 6. Benjamin P. Warner et al., "Method for Detecting Binding Events Using Micro-X-Ray Fluorescence Spectrometry," U. S. Patent Application Publication US2003/0027129, published February 6, 2003.
- 7. George J. Havrilla et al., "Flow Method and Apparatus for Screening Chemicals Using Micro X-Ray Fluorescence," U. S. Patent application serial number 10/206,524, filed July 25, 2002.
- 8. Bruce Alberts, Dennis Bray, Julian Lewis, Martin Raff, Keith Roberts, and James D. Watson, "Molecular Biology of the Cell," Second Edition, pp. 159-160, 1989.
- 9. M. C. Ringo, M. S. Huhta, G. Shea-McCarthy, J. E. Penner-Hahn, and C. E. Evans, "On-Line X-ray Fluorescence Detection for Capillary Electrophoresis Separations," Nuclear Instruments and Methods in Physics Research B, vol. 149, pp. 177-181, 1999.
- 10. Stephanie E. Mann, Moira C. Ringo, Grace Shea-McCarthy, James Penner-Hahn, and Christine E. Evans, "Element-Specific Detection in Capillary Electrophoresis Using X-ray Fluorescence Spectroscopy," Anal. Chem, vol. 72, no. 8, pp. 1754-1758, 2000.
- 11. C. Vogt, J. Vogt and H. Wittrisch, "Element-Sensitive X-ray Detection for Capillary Electrophoresis," Journal of Chromatography A, vol. 727, pp. 301-310, 1996.
- 12. Thomasin C. Miller, Martha R. Joseph, George J. Havrilla, Cris Lewis, and Vahid Majid, "Capillary Electrophoresis Micro X-ray Fluorescence: A Tool for Benchtop Elemental Analysis," Analytical Chemistry, vol. 75, pp. 2048-2053, 2003.

This Information Disclosure Statement is not to be construed as a representation that a search has been made or that additional matter material to the examination of this application does not exist. Applicant does not believe that any of these citations constitutes prior art under 35 U.S.C. 102.

It is requested that the above citations be made of record in the prosecution of this application.

Respectfully submitted,

Date: July 16, 2003

Reg. No. 42,346 Phone (505) 665-3111 Samuel L. Borkowsky
Los Alamos National Laboratory
LC/IP, MS A187

Samul I Bostowski

Los Alamos, New Mexico 87545

Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office										Attorney Docket	No.	Serial No.			
											S-100,585					
	INFORMATION DISCLOSURE										Applicant(s)	Applicant(s)				
	STATEMENT BY APPLICANT										Benjamin P. Warner et al.					
												'				
											Filing Date	Group				
37 CFR 1.98(b)										I C DATENTO	DOCUM	ENTO				
U.S. PATENTS DOCUMENTS  EXAMINER PATENT ISSUE PATENTEE CLASS SUB FILING																
INITIAL			NL	JMВ	ER					DATE		CLASS DATE				
			6	1	4	7	3	4	4	11/14/2000	D. Allen	Annis et al.	250	281	01/19/	1999
			6	3	4	4	3	3	4	02/05/2002	Jonathn al.	A. Ellman et	435	7.1	03/26/	1999
			6	3	9	5	1	6	9	05/28/2002	Ole Hind	Isgaul et al.	210	198.2	10/05/	1999
			5	6	4	1	6	4	0	06/24/1997	Anders I	Hanning	435	7.92	06/29/	1993
			5	9	6	5	4	5	6	10/12/1999	Magnus al.	Malmqvist et	436	514	04/29/	1997
									FO	REIGN PATE	NT DOCL	IMENTS				
EXAMINER INITIAL						COUNTRY		CLASS	SUB Translation CLASS YES NO							
										57772				02.00		
												<u></u>				
									,							
OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)																
George J. Havrilla et al., "Flow Method and Apparatus for Screening Chemicals Using Micro X-Ray Fluorescence," U. S. Patent application serial number 10/206,524, filed July 25, 2002																
Bruce Alberts, Dennis Bray, Julian Lewis, Martin Raff, Keith Roberts, and James D. Watson, "Molecular Biology of the Cell," Second Edition, pp. 159-160, 1989																
	M. C. Ringo, M. S. Huhta, G. Shea-McCarthy, J. E. Penner-Hahn, and C. E. Evans,															
"On-Line X-ray Fluorescence Detection for Capillary Electrophoresis Separations," Nuclear Instruments and Methods in Physics Research B, vol. 149, pp. 177-181, 1999								999								
EXAMINER:												DATE CONSIDE	RED:			
*EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.																

Sheet 2 of 1

			Silect 2 of 2							
	U.S. Department of Commerce	Attorney Docket No.	Serial No.							
(Modified)	Patent and Trademark Office	S-100,585								
	INFORMATION DISCLOSURE	Applicant(s)								
	STATEMENT BY APPLICANT	, ipplied.ii(e)								
	STATEMENT BY ALL EIGHN	Benjamin P. Warner et al								
		Filing Date	Group							
37 CFR 1.98(b)	OTHER POOLINEARY									
	OTHER DOCUMENTS (Including Author, Title									
	Stephanie E. Mann, Moira C. Ringo, Grace Shea-McCarthy, James Penner-Hahn, and Christine E. Evans, "Element-Specific Detection in Capillary Electrophoresis Using X-									
•	ray Fluorescence Spectroscopy," Anal. Chem, vol. 72, no. 8, pp. 1754-1758, 20									
-	C. Vogt, J. Vogt and H. Wittrisch, "Element-Sensitive X-ray Detection for Capillary									
	Electrophoresis," Journal of Chromatography A, vol. 727, pp. 301-310, 1996									
	Electrophoresis, southar of officinatography A, vol. 121, pp. 501-510, 1880									
	Benjamin P. Warner et al., "Method for Detecting Binding Events Using Micro-X-Ray									
	Fluorescence Spectrometry," U. S. Patent Application Publication US2003/0027129,									
	published February 6, 2003.	published February 6, 2003.								
	Thomasin C. Miller, Martha R. Joseph, Geor	ge J. Havrilla Cris Lev	wis and Vahid Maiid							
	Thomasin C. Miller, Martha R. Joseph, George J. Havrilla, Cris Lewis, and Vahid Majid, "Capillary Electrophoresis Micro X-ray Fluorescence: A Tool for Benchtop Elemental									
	Analysis," Analytical Chemistry, vol. 75, pp. 2		montop Elemental							
	Analysis, Analytical officinistry, vol. 10, pp. 1	2040-2000, 2000.								
			·							
•										
		•								
			•							
		·	·							
•			•							
	<u> </u>									
			1							
EXAMINER:		DATE CONSIDERED:	<u></u>							
		,								
*EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next										